

EXHIBIT 9

From: Ben Lo <benlo@bbpos.com.hk>
To: Christopher ROTSAERT
Sent: 4/23/2012 5:50:27 AM
Subject: Re: Data rate by audio jack

Hi Christopher,

The data rate is limited by the smart phone. Due to the following reasons, we decided to start from a slower data rate:

1. The earphone lines are playing a very strong single tone for a swiper to extract sufficient energy. For some phones, the tone is coupled into the microphone input as they shared the common ground. A slower data rate is adopted for a more reliable communication.
2. The AGC (automatic gain control) of every phone behaves differently and it affects the received signal quality.
3. We are not sure whether all phones have audio sampling rate of 44.1KHz/ 48KHz, or some will have lower rate. We haven't found problem in iOS/Android but actually we found out that some windows mobile phone has a sampling rate of 16KHz only.
4. We are also not sure whether there will be some phones that cannot supports PCM (e.g. for some blackberry phones, they only supports CELP, which is a kind of LPC).

To achieve highly data rate over audio jack, it is a research topic. Like the modem (data over traditional phone line), it starts from 75bps. After many researches, nowadays 56Kbps can be achieved.

Before Ingenico cash injection, people in ROAM focus in product and revenue generation. After Ingenico cash injection, the situation is the same. No one is working on basic R&D which can give high value to the company in mid or long term.

Ben

On Sun, Apr 22, 2012 at 11:43 PM, Christopher ROTSAERT <Christopher.RO TSAERT@ingenico.com> wrote:

Thanks. What is limiting this data rate ? Is it because of smarphone/tablet or is it because of design of a battery-less swiper ?

In case of swipe / chip (with battery, more electronics CPU, ADCs), do you think you could reach much higher rate ?

Thanks,

Christopher

De : Ben Lo [<mailto:benlo@bbpos.com.hk>]
Envoyé : dimanche 22 avril 2012 11:34
À : Christopher ROTSAERT
Objet : Re: Data rate by audio jack

Current data rate is 2kbps.

On Sun, Apr 22, 2012 at 11:11 PM, Christopher ROTSAERT <Christopher.RO TSAERT@ingenico.com> wrote:

Hi Ben,

Simple & easy questions for you.

Could you please remind me the data rate we can consider through audio jack for most of smartphones/tablets ?

What is current data rate we currently have with G3X ? If I remember, you mentioned during a discussion that you were working on improvement, correct?

Thanks,

Christopher